

# Supplementary Material

## Link Between Dietary Sodium Intake, Cognitive Function, and Dementia Risk in Middle-Aged and Older Adults: A Systematic Review

Supplementary Table 1. Search strategy

No	Keywords
#1	Search (salt OR sodium OR natrium)
#2	Search (intake OR consumption OR feeding)
#3	Search (old age OR elderly OR aged OR geriatric)
#4	Search (people OR adults OR population)
#5	Search (cognitive OR memory OR mental)
#6	Search (impairment OR function OR decline)
#7	Search dementia OR Alzheimer
#8	Search 1# AND #2
#9	Search 3# AND 4#
#10	Search #5 AND #6
#11	Search #10 OR #7
#12	Search #8 AND #9 AND #11

**Supplementary Table 2.** Quality assessment for cross sectionals and cohort studies

NIHLBH Assessment tool for cross-sectionals and cohort studies	Publications													
	Haring et al. [28]	Fiocco et al. [30]	Nowak et al. [29]	Li et al. [32]	Rush et al. [31]	Hwang and Kim [37]	Bojar et al. [35]	Afsar B. [34]	Salerno-Kennedy and Cashman [40]	Koh et al. [36]	Brownbill and Ilich [39]	del C. Valdés Hernández et al. [38]	Milte et al. [33]	Yao et al. [41]
1. Was the research question or objective in this paper clearly stated?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
2. Was the study population clearly specified and defined?	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	no	yes	yes
3. Was the participation rate of eligible persons at least 50%?	NR	NR	NR	NR	yes	yes	NR	NR	NR	no	NR	NR	yes	yes
4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
5. Was a sample size justification, power description, or variance and effect estimates provided?	no	no	no	no	no	no	no	no	no	no	no	no	no	no
6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?	yes	yes	yes	yes	no	no	no	no	no	no	no	no	yes	no
7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?	yes	yes	yes	yes	no	no	no	no	no	no	no	no	yes	no
8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?	yes	yes	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	no
10. Was the exposure(s) assessed more than once over time?	no	no	no	no	no	no	no	no	no	no	no	no	no	no
11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
12. Were the outcome assessors blinded to the exposure status of participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
13. Was loss to follow-up after baseline 20% or less?	yes	yes	yes	NR	NA	NA	NA	NA	NA	NA	NA	NA	yes	NA
14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?	yes	yes	yes	no	yes	no	no	yes	no	no	no	no	yes	no
Quality	good	good	good	fair	fair	fair	poor	fair	poor	poor	poor	poor	fair	poor

**Supplementary Table 3.** Quality assessment for clinical trial (interventional study)

<b>NIHLBH Assessment for Interventional Trial</b>	<b>Blumenthal et al.</b>
1. Was the study described as randomized, a randomized trial, a randomized clinical trial, or an RCT?	yes
2. Was the method of randomization adequate (i.e., use of randomly generated assignment)?	yes
3. Was the treatment allocation concealed (so that assignments could not be predicted)?	yes
4. Were study participants and providers blinded to treatment group assignment?	yes
5. Were the people assessing the outcomes blinded to the participants' group assignments?	no
6. Were the groups similar at baseline on important characteristics that could affect outcomes (e.g., demographics, risk factors, co-morbid conditions)?	yes
7. Was the overall drop-out rate from the study at endpoint 20% or lower of the number allocated to treatment?	yes
8. Was the differential drop-out rate (between treatment groups) at endpoint 15 percentage points or lower?	yes
9. Was there high adherence to the intervention protocols for each treatment group?	yes
10. Were other interventions avoided or similar in the groups (e.g., similar background treatments)?	no
11. Were outcomes assessed using valid and reliable measures, implemented consistently across all study participants?	yes
12. Did the authors report that the sample size was sufficiently large to be able to detect a difference in the main outcome between groups with at least 80% power?	yes
13. Were outcomes reported or subgroups analyzed prespecified (i.e., identified before analyses were conducted)?	yes
14. Were all randomized participants analyzed in the group to which they were originally assigned, i.e., did they use an intention-to-treat analysis?	yes
Quality	good